



ISO-9001 Registered Quality System.
ISO-21469 Compliant.

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PRODUCT DATA

LUBRIPLATE PGO-FGL SYNTHETIC GEAR OILS

"These products are certified OU Kosher Pareve"
"Approved by Flender"

*NSF International H-1 Registered
NSF ISO21469 Certification

DESCRIPTION

The LUBRIPLATE PGO-FGL grades consist of a range of ISO VG lubricants formulated to provide the user with superior performance under demanding operating conditions. Water soluble polyalkylene glycol base stocks, known to provide outstanding micropitting and EP characteristics are used to manufacture these lubricants. With the addition of a high performance, food approved additive package, these products are able to offer excellent thermal stability, high wear reduction rates, high micropitting resistance and load carrying ability as well as good corrosion protection.

APPLICATIONS

The LUBRIPLATE PGO-FGL ranges have been specially formulated for use as industrial gearbox lubricants within the food manufacturing environment. As such, they have achieved approval within a number of different gear designs, these include:

- ⇒ Helical
- ⇒ Bevel Helical
- ⇒ Planetary
- ⇒ Worm Gears

"The **LUBRIPLATE PGO-FGL Synthetic Gear Oil Series** contains no components derived from TSE/BSE relevant animal species; therefore, it is compliant with the requirements of the TSE Note for Guidance EMA/410/01 Rev. 3 July 2011".

FLUSH PROCEDURE

When changing from a mineral oil or PAO based product to one of the LUBRIPLATE PGO-FGL grades, the following procedure should be followed:

The system should be run until the old oil is warm, then drain as fully as possible, particular attention being paid to reservoirs, lines etc., where oil may be trapped. The system should be cleaned of residual sludge.

The system should be cleaned, if necessary, with *Synflush FG* depending on the flushed oil condition.

Flush the system with the minimum quantity of LUBRIPLATE PGO-FGL by operating under no load and then drain the system while the fluid is warm. Repeat if necessary.

Seals, etc., should be inspected and if deteriorated, then replaced. Seals previously exposed to other oils may shrink when exposed to LUBRIPLATE PGO-FGL fluids, therefore, it may be advantageous to replace them, however, this is not mandatory. Careful inspection of the system for leaks will often suffice.

It is useful to inspect the lubricant after one or two days in use to make sure that it is free of extraneous materials. Contamination with significant quantities of other lubricants can, in some cases, lead to sludging, foaming and other problems.

Typical Test Data & Storage – See Back

COMPATIBILITY

Polyurethane based elastomers, leather, cork, asbestos, paper and board should be avoided. Common seal and gasket materials are unaffected by LUBRIPLATE PGO-FGL Synthetic Gear Oils. Nitrile Rubber (NBR), Fluoro-Silicone or Vinyl-Methyl Polysiloxane (Q) are recommended especially where high temperatures are involved.

Ordinary industrial paints soften in the presence of these products. Internal gearbox surfaces should ideally be unpainted, or coated with resistant materials, for example a resistant two-pack epoxy formulation. *These products must never be mixed with mineral or PAO based products.*

PACKAGING AVAILABLE

54 Gallon Drum

5 Gallon Pail

Carton, 4/1 Gallon Jugs

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5 Gallon Pail

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5 Gallon Pail

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PACKAGING AVAILABLE

54 Gallon Drum

5 Gallon Pail

Carton, 4/1 Gallon Jugs

Carton, 12/1 Plastic Quarts

PGO-FGL 46

L0817-062

L0817-060

L0817-057

PGO-FGL 100

L0805-062

L0805-060

L0805-057

PGO-FGL 220

L0811-062

L0811-060

L0811-057

PGO-FGL 460

L0813-062

L0813-060

L0813-057

L0813-054

PGO-FGL 68

L0819-062

L0819-060

L0819-057

PGO-FGL 150

L0810-062

L0810-060

L0810-057

PGO-FGL 320

L0812-062

L0812-060

L0812-057

PGO-FGL 680

L0815-062

L0815-060

L0815-057

PROPERTY	TEST METHOD	TYPICAL RESULTS							
		PGO-FGL 46	PGO-FGL 68	PGO-FGL 100	PGO-FGL 150	PGO-FGL 220	PGO-FGL 320	PGO-FGL 460	PGO-FGL 680
Viscosity cSt @ 40°C	ASTM D-445	46	68	100	150	227	339	477	725
Viscosity cSt @ 100°C	ASTM D-445	10.6	14.5	19.9	25.0	41.9	60.6	83.0	122.2
ISO Viscosity Grade	ASTM D-2422	46	68	100	150	220	320	460	680
Viscosity Index	ASTM D-2270	214	219	224	232	242	252	262	272
Pour Point	ASTM D-97	-43°C/ -45°F	-43°C/ -45°F	-42°C/ -44°F	-47°C/ -53°F	-42°C/ -44°F	-39°C/ -38°F	-36°C/ -33°F	-33°C/ -27°F
Flash Point (COC)	ASTM D-92	276°C/ 529°F	271°C/ 520°F	274°C/ 525°F	284°C/ 543°F	284°C/ 543°F	282°C/ 540°F	284°C/ 543°F	287°C/ 549°F
Density @ 15°C (Kg/L)		1.037	1.037	1.037	1.057	1.057	1.062	1.067	1.072
TAN	ASTM D-974	0.2 max	0.2 max	0.2 max	0.2 max	0.2 max	0.2 max	0.2 max	0.2 max
FZG Load Stage A/8.3/90	DIN 51354	>12*	>12*	>12*	>12*	>12	>12*	>12*	>12*
Micropitting @ 90°C Endurance	DIN 51354	10*	10*	10*	10*	10	10*	10*	10*
Micropitting @ 60°C Endurance	DIN 51354	10*	10*	10*	10*	10	10*	10*	10*
4-Ball Wear	ASTM D-4172	0.40 mm	0.40 mm	0.40 mm	0.32 mm	0.34 mm	0.38 mm	0.38 mm	***
Evaporation Loss	ASTM D-972	***	***	***	0.26%	0.36%	0.13%	0.22%	***

*FZG results obtained from PGO FGL 220 were extrapolated to all grades

LUBRIPLATE PGO-FGL Gear Oils are considered to be inherently biodegradable according to test results from ASTM D-5864/OECD 301B.

STORAGE RECOMMENDATIONS

1. Products should be stored between 40°F-120°F.
2. Products should be stored in a dry covered environment.
3. Products should not be stored in warm, direct sunlight.
4. Improper storage conditions can significantly alter the shelf life of the product. Such conditions would include temperature, moisture, open containers, etc.

*Registered H-1 by NSF International for use in food processing facilities as a lubricant or anti-rust agent on equipment in which there may be incidental contact involving the lubricated part and the edible product.

*NSF International H1 Registration No.'s (Meets former USDA 1998 Guidelines)

(FGL 46) <u>141192</u>	(FGL 68) <u>#####</u>	(FGL 100) <u>####</u>
(FGL 150) <u>141192</u>	(FGL 220) <u>141193</u>	(FGL 320) <u>141194</u>
(FGL 460) <u>141195</u>	(FGL 680) <u>141196</u>	



Nonfood Compounds
H1 Registered
ISO 21469 Certified

PAREVE

HALAL